



Date: November 10, 2008
To: City Manager for Council Action
From: John C. Roukema, Director of Electric Utility
Subject: Approval of Revised and Updated Environmental Stewardship and Renewable Portfolio Standard Policy Statement

EXECUTIVE SUMMARY:

Section 387 of the Public Utilities Code (PU Code), which was established pursuant to SB1078, effective January 1, 2003, requires publicly owned utilities to implement and enforce a Renewable Portfolio Standard (RPS). SB1078 (PU Code Section 399.15) also requires investor owned utilities to have a minimum of 20% of their power (excluding hydroelectric resources over 30 megawatts) from eligible renewable resources by 2017.

On April 22, 2003, City Council adopted the City of Santa Clara Silicon Valley Power Environmental Stewardship and Renewable Portfolio Standard Policy Statement (RPS Policy Statement). Although the City's RPS Policy Statement does not specify a minimum percentage of power from eligible renewable resources, the amount of eligible renewable power delivered to the City's electric customers has consistently exceeded 20% since 2003, and this figure is approximately 30% for 2008.

Recent legislative proposals and the implementation of AB32, California's greenhouse gas reduction law (Division 25.5 of the Health and Safety Code), have highlighted the need for an RPS target higher than the 20% RPS imposed by SB1078. The new target most commonly discussed by state regulators is 33% RPS by 2020. Silicon Valley Power (SVP) staff has been closely monitoring these issues, and believe that successful implementation of AB32 will require a significantly greater use of renewable resources. Staff also believes that it would be appropriate for the City to adopt a specific RPS target of 33% by 2020, with intermediate milestones as set forth below, which expresses unequivocally the City's commitment to renewable resources. The following are the proposed percentages:

- At least 20% of yearly retail load for 2008 through 2013
- At least 24% of yearly retail load for 2014 through 2016
- At least 28% of yearly retail load for 2017 through 2019
- At least 33% of yearly retail load for 2020 and following years

The proposed revised RPS Policy, a copy of which is attached, also incorporates a new accounting system for renewable energy. SVP plans to comply with the proposed RPS by retiring renewable energy credits (RECs), each of which represent the "environmental attributes" of a megawatt hour (MWh) of generation from an SB1078 Eligible Renewable Resource. Examples of this include NCPA Geysers energy, M-S-R Bighorn wind energy. Over the course of each year, enough RECs will be retired to meet that year's RPS target. Whenever possible, SVP will register its generating units and accrue RECs with the Western Renewable Electricity Generation Information System (WREGIS). WREGIS is an independent renewable energy tracking system for the Western Region that uses verifiable data to assign RECs to owners of registered renewable generating units. By eliminating the constraints of the electric grid, the REC system allows parties to comply with SB1078 in an efficient and economical manner.

A significant investment in renewable procurement will be needed to meet the year 2020 requirements. To this end, as noted above, the proposed RPS Policy Statement allows SVP to sell RECs not needed for RPS purposes to other parties. Importantly, the Policy provides that net proceeds from any such REC sales would be used to support future renewable projects.

Membership in WREGIS will cost \$1500 per year, plus an administrative fee of \$0.005 for each REC used (retired), sold, or transferred. For 2009, staff estimates that payments to WREGIS would be approximately \$4,400.

More important, the proposed RPS may have significant long-term costs. While SVP currently serves 30% of its load with renewable resources, this figure is projected to drop to 23% by 2016 due to load growth and declining geothermal production. New renewable resources will thus be needed to meet the percentages in the RPS Policy Statement, and acquiring them is likely to be more expensive than historic resource options.

However, SVP will likely be subject to a higher state RPS requirement, either through direct legislation or ARB regulations implementing AB32, which will require increased expenditures for renewable energy in any event. Working towards acquiring renewables before a 33% statewide standard is implemented might benefit the City by providing a longer planning horizon and a potentially broader availability of renewable resource options.

ADVANTAGES AND DISADVANTAGES OF ISSUE:

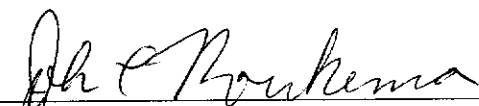
The proposed RPS Policy Statement expresses Council's intent to renew and intensify its commitment to renewable energy and greenhouse gas reduction and fulfill the requirements of AB32. The challenge will be to fulfill this commitment in a manner that does not adversely affect the competitiveness of the City's electric rates.

ECONOMIC/FISCAL IMPACT:

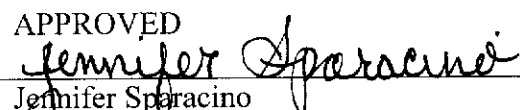
Membership in WREGIS will cost \$1500 per year, plus an administrative fee of \$0.005 for each REC used (retired), sold, or transferred. For 2009, staff estimates that payments to WREGIS would be approximately \$4,400. Sufficient funds are available in Contractual Services, Not Classified [Account 091-1351-87870]..

RECOMMENDATION:


That Council approve the revised and updated Environmental Stewardship and Renewable Portfolio Standard (RPS) Policy Statement.

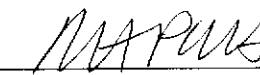


John C. Roukema
Director of Electric Utility

APPROVED


Jennifer Sparacino
City Manager


Certified as to Availability of Funds
091-1351-87870 \$4,400.00



Mary Ann Parrot
Director of Finance

MAJORITY VOTE OF COUNCIL

Documents Related to this Report:

- 1) Revised and Updated Environmental Stewardship and Renewable Portfolio Standard (RPS) Policy Statement.***

City of Santa Clara Silicon Valley Power Environmental Stewardship and Renewable Portfolio Standard Policy Statement

Introduction

Section 387 of the Public Utilities Code requires each governing body of a local publicly owned electric utility to implement and enforce a Renewables Portfolio Standard (RPS). This standard is required by the state to encourage the development and use of renewable resources.

The RPS approved by the governing body must take into consideration the effect of the standard on rates, reliability, and financial resources, and the goal of environmental improvement. In addition, publicly-owned electric utilities are required to annually report on their fuel mix, including eligible renewable resources, and programs to customers. The full definitions of the standards for the renewables portfolio standard, reporting requirements and Eligible Renewable Resources are detailed in Appendix A, attached hereto and incorporated herein.

The City of Santa Clara, operating as Silicon Valley Power (SVP), supports a broad range of energy conservation, efficiency, low income and renewable generation programs.

Environmental Stewardship

The City of Santa Clara supports wise use of resources that effectively enhance environmental stewardship. Environmental stewardship includes encouraging SVP customers to use energy efficiently and economically. It also includes providing SVP customers with multiple options for receiving renewable generation resources. When given a choice between purchasing and/or developing energy supply options, staff will emphasize all economic options that enhance environmental stewardship. This includes providing programs for customers to save energy at home and at work, as well as options for customers to opt into the purchase of renewable energy. Finally, this policy requires that when economic and reliability factors are equivalent, staff shall to choose to purchase renewable energy for Silicon Valley Power customers.

Energy Efficiency and Conservation Programs

In promoting an ethic of environmental stewardship, avoiding the waste of resources is vital. For SVP, energy efficiency and conservation have been and are usually the most affordable methods to achieve this goal. Avoiding a kilowatt of energy use can be more economically efficient and environmentally beneficial than producing new,

renewable resources. Therefore, staff shall first make every effort to implement cost-effective programs to encourage the wise use of energy by all customer classes. This effort will be primarily implemented through the Public Benefits Charge program under the guidelines approved by City Council on May 12, 1998.

Renewable Energy Role

It is also the policy of the City of Santa Clara to support the purchase and delivery of renewable energy to all customers in Santa Clara as a part of its business plan. Renewable energy shall be included in the utility portfolio of energy provided to customers. These resources shall be cost-effective, reliable, clean, and part of the ongoing energy purchase operations that reduces risk through a diversity of resources.

Public Utility Code Section 387 requires investor owned utilities to maintain a minimum of 20% of their energy from Eligible Renewable Resources by 2017 with 1% annual increases until that requirement is reached. The 2017 target was subsequently advanced to 2010 via Senate Bill 107 passed in 2006. Current *proposed* legislation would increase the 20% minimum to 33% by 2020.

SVP has exceeded California's 20% target for the past 20 years. More than 28% of SVP electricity is currently derived from Eligible Renewable Resources, as defined by Section 387 (which excludes large hydropower facilities). When large hydropower facilities are included, over 50% of SVP resources are derived from renewable resources.

It is the intent of the City of Santa Clara to continue to support the acquisition and/or ownership of renewable resources, work diligently to increase the amount of renewable power in our portfolio, and set yearly goals and milestones to increase their use. The goal and milestones under this policy statement are as follows:

Santa Clara's resource portfolio used to supply its retail electricity customers should contain:

- at least 33% Eligible Renewable Resources in the year 2020, with milestones of
- at least 20% Eligible Renewable Resources through 2013,
- 24% Eligible Renewable Resources from 2014-2016, and
- 28% Eligible Renewable Resources from 2017-2019.

SVP shall account for the percentage of renewable energy in Santa Clara's portfolio using Renewable Energy Credits (RECs), which represent megawatt hours (MWhs) of generation from Eligible Renewable Resources. Whenever possible, SVP will register its renewable power supplies with the Western Renewable Energy Generation Information System (WREGIS) and accrue RECs in its WREGIS account(s) as renewable energy is generated or purchased. In the course of each calendar year, SVP shall retire enough RECs to meet that year's stated RPS goals and milestones.

SVP shall also be permitted to sell RECs not needed for its RPS purposes to other parties. Net proceeds from portfolio REC sales shall be used only for the investment in, or procurement of, additional renewable energy. Any action by the federal or state government that may adversely affect the use of RECs as described above shall trigger a timely review of this policy.

Direct Customer Programs

Customers also are given the opportunity to participate directly in programs that increase their individual use of renewable energy.

Programs that support the retail installation of renewable energy resources, such as the Neighborhood Solar Program or rebates for the installation of Solar Electric generation systems, are available to customers through the Public Benefits Program. In addition, the Santa Clara Green Power (SCGP) program provides RECs from in-state solar and wind generation, including from city-sponsored retail installations, directly to participating customers on a voluntary basis through third party brokers.

Because these Direct Customer Programs are designed to increase the renewable energy use of individual customers, to avoid double-counting they shall not be accounted for in the City's RPS

Reporting

Silicon Valley Power shall annually report on its energy efficiency and retail renewable generation programs and its power mix, as outlined in Public Utilities Code Section 387. These reports will be included in the Annual Public Benefit Charge Status Report to City Council, and be included as a part of the power content label. Included in the annual report to City Council shall be the following items:

- a description of all energy efficiency and renewable generation retail projects in the Public Benefit Program, including a summary of customer involvement, energy savings, and cost by program;
- a listing of all power supplies, aggregated by fuel source and renewable eligibility status;
- a summary of power by fuel types (by percentage and by total kilowatt hours sold);
- a discussion of the impact on customer rates and utility costs if additional Eligible Renewable Resources are required;
- a summary of RECs purchased and/or sold and a description of how such RECs met WREGIS or other applicable accounting standards;
- a summary of any net proceeds from REC sales, including a description of how such proceeds are used or will be used to acquire additional renewable resources; and
- an update to forecasts of future sources of fuel supply and recommended plans to increase the percentage of power from renewable sources.

Silicon Valley Power shall also provide a carbon emissions intensity number that may be used by customers when calculating their carbon footprint. This number represents the pounds of CO₂ emitted per KWh of electricity delivered by Silicon Valley Power and is adjusted appropriately for the environmental properties of RECs that have been purchased or sold.

Appendix A

The following requirements on publicly owned electric utilities are imposed by the Public Utilities Code, Section 387:

- (a) Each governing body of a local publicly owned electric utility, as defined in Section 9604, shall be responsible for implementing and enforcing a renewables portfolio standard that recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement.
- (b) Each local publicly owned electric utility shall report, on an annual basis, to its customers, the following:
 - (1) Expenditures of public goods funds collected pursuant to Section 385 for renewable energy resource development. Reports shall contain a description of programs, expenditures, and expected or actual results.
 - (2) The resource mix used to serve its customers by fuel type. Reports shall contain the contribution of each type of renewable energy resource with separate categories for those fuels considered eligible renewable energy resources as defined by Section 399.12.

Public Utilities Code Section 399.12 defines renewable energy resources as follows:

399.12. For purposes of this article, the following terms have the following meanings:

"Eligible renewable energy resource" means an electric generating facility that is one of the following:

- (1) The facility meets the definition of "in-state renewable electricity generation technology" in Section 383.5.

"In-state renewable electricity generation technology" is defined in utility code 383.5 to mean biomass, solar thermal, photovoltaic, wind, geothermal, small hydropower of 30 megawatts or less, waste tire, digester gas, landfill gas, and municipal solid waste generation technologies, as described in the report, defined in paragraph (2), including any additions or enhancements thereto, that are produced in facilities located in this state and placed in operation after September 26, 1996, or that were operational prior to that date, and that are also certified under Section 292.2904 of Title 18 of the Code of Federal Regulations as a qualifying small power production facility either located in California, or that began selling electricity to a California electrical corporation prior to September 26, 1996, under a Standard Offer Power Purchase Agreement authorized by the commission.

- (2) A geothermal generation facility originally commencing operation prior to September 26, 1996, shall be eligible for purposes of adjusting a retail seller's baseline quantity of eligible renewable energy resources except for output certified as incremental geothermal production by the Energy Commission, provided that the incremental output was not sold to an electrical corporation under contract entered into prior to September 26, 1996. For each facility seeking certification, the Energy Commission shall determine historical production trends and establish criteria for measuring incremental geothermal production that recognizes the declining output of existing steamfields and the contribution of capital investments in the facility or wellfield.
- (3) The output of a small hydroelectric generation facility of 30 megawatts or less procured or owned by an electrical corporation as of the date of enactment of this article shall be eligible only for purposes of establishing the baseline of an electrical corporation pursuant to paragraph (3) of subdivision (a) of Section 399.15. A new hydroelectric facility is not an eligible renewable energy resource if it will require a new or increased appropriation or diversion of water under Part 2 (commencing with Section 1200) of Division 2 of the Water Code.
- (4) A facility engaged in the combustion of municipal solid waste shall not be considered an eligible renewable resource unless it is located in Stanislaus County and was operational prior to September 26, 1996. Output from such facilities shall be eligible only for the purpose of adjusting a retail seller's baseline quantity of eligible renewable energy resources.

CITY OF SANTA CLARA
AGENDA MATERIAL ROUTE SHEET

Council Date: November 18, 2008

SUBJECT: Approval of Revised and Updated Environmental Stewardship and Renewable Portfolio
Standard Requirements

CERTIFICATION

The proposed Revised Environmental Stewardship and Renewable Portfolio Standard Requirements

Regarding: _____

has been reviewed and is hereby certified.

PUBLICATION REQUIRED:

The attached Notice/Resolution/Ordinance is to be published _____ time(s) at least _____ days before the scheduled meeting/public hearing/bid opening/etc., which is scheduled for _____, 2008.

AUTHORITY SOURCE FOR PUBLICATION REQUIREMENT:

Federal Codes:

Title _____ U.S.C. § _____
(Titles run 1 through 50)

Federal Regulations:

Title _____ C.F.R. § _____
(Titles run 1 through 50)

California Codes:

Code _____ § _____
(i.e., Government, Street and Highway, Public Resources)

California Regulations:

Title _____ California Code of Regulations § _____
(Titles run 1 through 28)

City

City Charter § _____ (i.e., 1310. Public Works Contracts. Notice published at least once at least ten days before bid opening)

City Code § _____

1. As to City Functions, by
2. As to Legality, by
3. As to Environmental
Impact Requirements, by
4. As to Substance, by

John C. Roskema
Department Head

Heleen Leichter
City Attorney's Office/CAO Assignment No. 08.1405

Director of Planning and Inspection

J. Sparacino
City Manager

Revision Date: June 7, 2005